

**ABSTRACT**

One embodiment features a method, apparatus, and computer-readable media comprising receiving a pulse generated in response to a transition of a head over a predetermined pattern on a storage medium; measuring a first amplitude of the pulse at a first  
5 predetermined time and one or more second amplitudes of the pulse at respective second predetermined times; and calculating a distance between the head and the storage medium based on a function of the first and second amplitudes. Another embodiment features a method, apparatus, and computer-readable media comprising receiving a pulse generated in  
10 response to a transition of a head over a predetermined pattern on a storage medium; measuring a first amplitude of a power spectrum of the pulse at a first predetermined frequency and a second amplitude of the power spectrum of the pulse at respective second predetermined frequencies; and calculating a distance between the head and the storage medium based on a function of the first and second amplitudes.

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